

**Central and Camelback Water Quality Assurance Revolving Fund (WQARF) Site
Community Advisory Board (CAB) Meeting**

Tuesday January 29, 2013

6:00 p.m.-8:00 p.m.

Arizona Department of Environmental Quality, Room 145
1110 W. Washington, Phoenix

DRAFT MINUTES

Ref: RPU #13-274

CAB members present: Peter Zorbas, Pam Perry, Stan Watts, Paul Barquinero, Lynn Morrow, and Jean Schroeder

CAB members absent: Frank Mendola

ADEQ staff in attendance: Kevin Snyder, Project Manager; Wendy Flood, Community Involvement Coordinator; and Andre Chiaradia

Members of the public present:

The following matters were discussed, considered, or decided at the meeting:

1. Welcome and Introductions

Mr. Watts welcomed all attendees.

2. Acceptance or Changes to October 18, 2010 meeting minutes

Ms. Perry moved to accept the minutes as written. It was seconded by Mr. Zorbas and passed unanimously by the CAB.

3. Site Activities since October 2010 including Remedial Activities, Permitting, Site Investigation and Budget - Kevin Snyder, Project Manager

Mr. Kevin Snyder went over the current map for the site noting the change in plume size, smaller southern plume and a separate plume up north.

See Presentation Below

Mr. Snyder covered the groundwater and soil vapor extraction systems and updates, well sampling, permits and reports, events since last meeting October 2010, amount of water treated and sampling trends, water flow and maintenance activities for soil and groundwater systems.

Mr. Snyder let the CAB know that the soil vapor system now runs full time and is doing a better job then the pulsing of on and off. There have been more carbon changes out since the system is pulling more contaminates; there was also a new well installed that has helped. Mr.

Snyder further explained that a soil gas survey was done to identify potential source/spill areas. He also showed an example of a passive soil gas sampler. Vapor and soil samples were collected and a nested soil vapor well was installed at the southwest corner of the building which has shown positive results. Mr. Snyder ended his presentation covering future activities. Ms. Schroder asked about the filling station and Mr. Snyder stated that work was performed by the former station operators regarding the station and clean-up on the corner. Mr. Watts inquired about the schedule for sampling and drilling. Mr Snyder stated it would be within the next few months, late spring hopefully. Well drilling information will be handed out in the neighborhood. Mr. Watts also asked for some information to give out at the annual HOA meeting. Ms. Flood stated she would follow up to get him the information. The CAB discussed attendance and the role of the group at HOA and other community events.

4. Discussion Regarding Merging with 7th Ave and Bethany Home CAB –

Mr. Watts stated this CAB is in close proximity to the current CAB and many members of the CAB serve on that board as well. Discussion was held among the members if they should merge into one CAB. The CAB agreed that they would be open to merging with the 7th Ave CAB if they want to as well. Ms. Flood will follow up with CAB members on the next steps and where the meetings will be.

5. *Call to the public

None

6. Next Meeting Date and Agenda Discussion

A meeting will be scheduled once the 7th Ave and Bethany CAB decide they want to merge. Also, if there are milestone site events then a meeting will be tentatively scheduled for June 17, 2013 at 6:00 pm. Agenda topics will include the Windsor HOA meeting, an outreach report from CAB members and a site update from ADEQ.

Ms. Perry thanked Mr. Snyder for the quick response to cover the tagging at the compound.

7. Adjournment

Ms. Schroeder moved to adjourn. It was seconded by Mr. Watts.



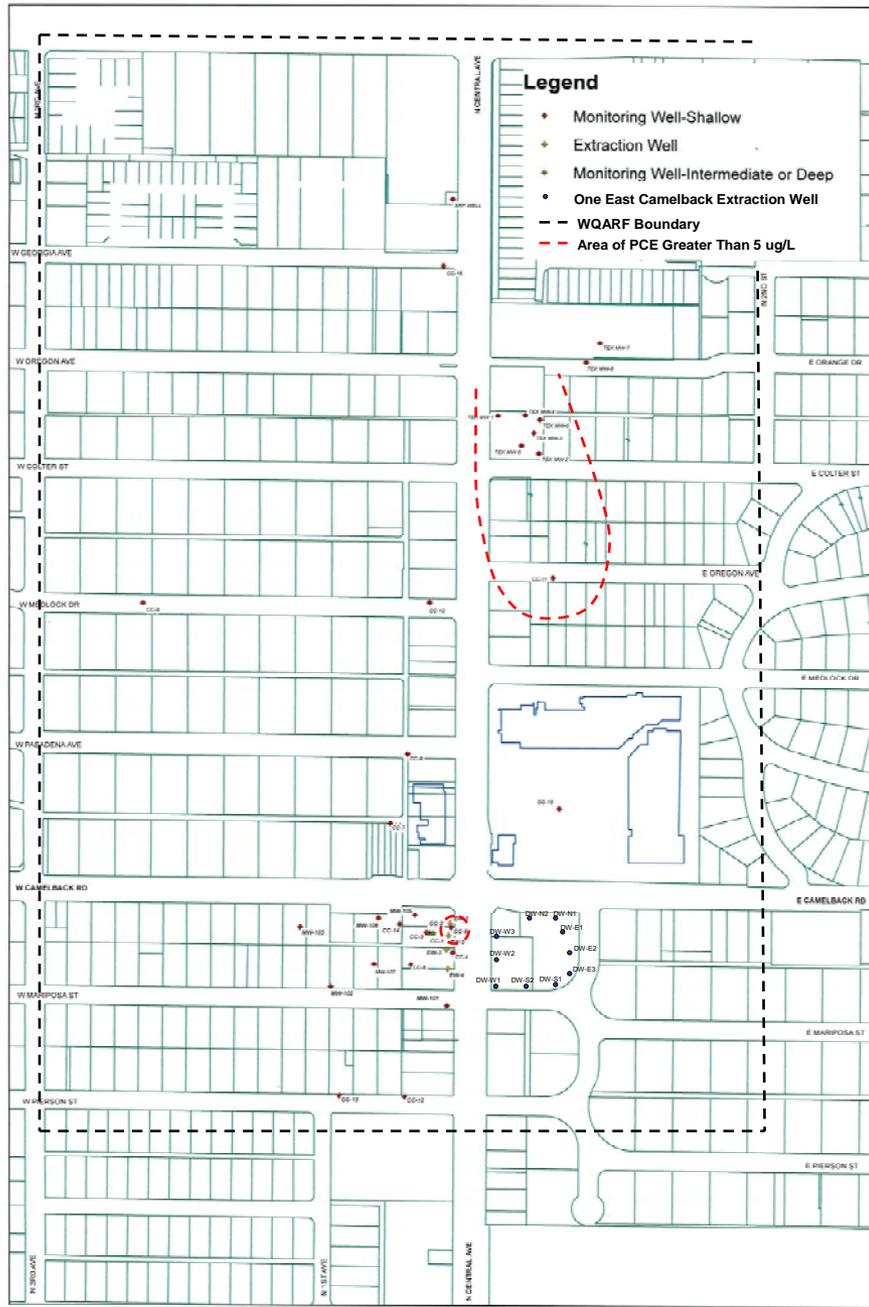
Central and Camelback WQARF Site

Kevin Snyder, Project Manager

Wendy Flood, Community Involvement Coordinator

Andre Chiaradia, Unit Manager

January 29, 2013 6:00pm



Events Since October 2010 CAB Meeting

- The groundwater remediation and treatment system was started February 2003. To this point the groundwater remediation and treatment system has removed 284.4 lbs of PCE from groundwater
- The soil vapor extraction (SVE) system was started November 2007. To this point the soil vapor extraction (SVE) system has removed 4,460 lbs of PCE from soil

Events Since October 2010 CAB Meeting

- Groundwater samples were collected from monitor wells during the first, second and fourth quarters of 2011 and 2012
- Groundwater samples were collected from the extraction wells and groundwater treatment system quarterly and monthly, respectively. Vapor samples were collected from the SVE system twice monthly or monthly
- SVE system and groundwater treatment system continue to operate and are fully funded

Events Since October 2010 CAB Meeting

- Permits were renewed during 2012 to continue operation of the treatment systems. These included:
 - Poor Quality Groundwater Withdrawal Permit;
 - Arizona Pollutant Discharge Elimination System (AZPDES); and
 - Air Quality Permit with Maricopa County Air Quality Department (MCAQD).

Events Since October 2010 CAB Meeting

- ADEQ prepares operation & maintenance (O&M) reports for the Groundwater Remediation and Treatment System and the Soil Vapor Extraction (SVE) System on a quarterly basis
- Hydro Geo Chem, Inc. conducts site activities weekly to keep remediation systems operational
- Hydro Geo Chem, Inc. compiles monitoring reports on a semi annual basis

Groundwater System Update

- The pumps in extraction wells EW-1 and EW-2 are only pumps currently in operation
- EW-3 and EW-4 were shutdown because of low PCE concentrations in 2009
- Rehabilitation activities were conducted at well EW-1 to increase well performance including:
 - replacing the pump
 - brushing the well
 - jetting the well
 - bailing the well, and
 - pumping the well

Groundwater System Update

- Repairs to the groundwater treatment system have included:
 - gauge and valve replacement
 - leak repairs
 - meter calibration, and
 - disconnection from the City of Phoenix (COP) sewer system

Groundwater System Update

PCE Concentrations In Extraction Well Samples

Well ID	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11
EW-1	12.8	14.4	3.7	8.2	20.0
EW-2	23.7	29.5	16.0	19.0	25.0
Well ID	Dec-11	Mar-12	Jun-12	Sep-12	Dec-12
EW-1	22.0	20.0	Not Sampled	Not Sampled	23.0
EW-2	27.0	23.0	23.0	16.0	17.0

Groundwater System Update

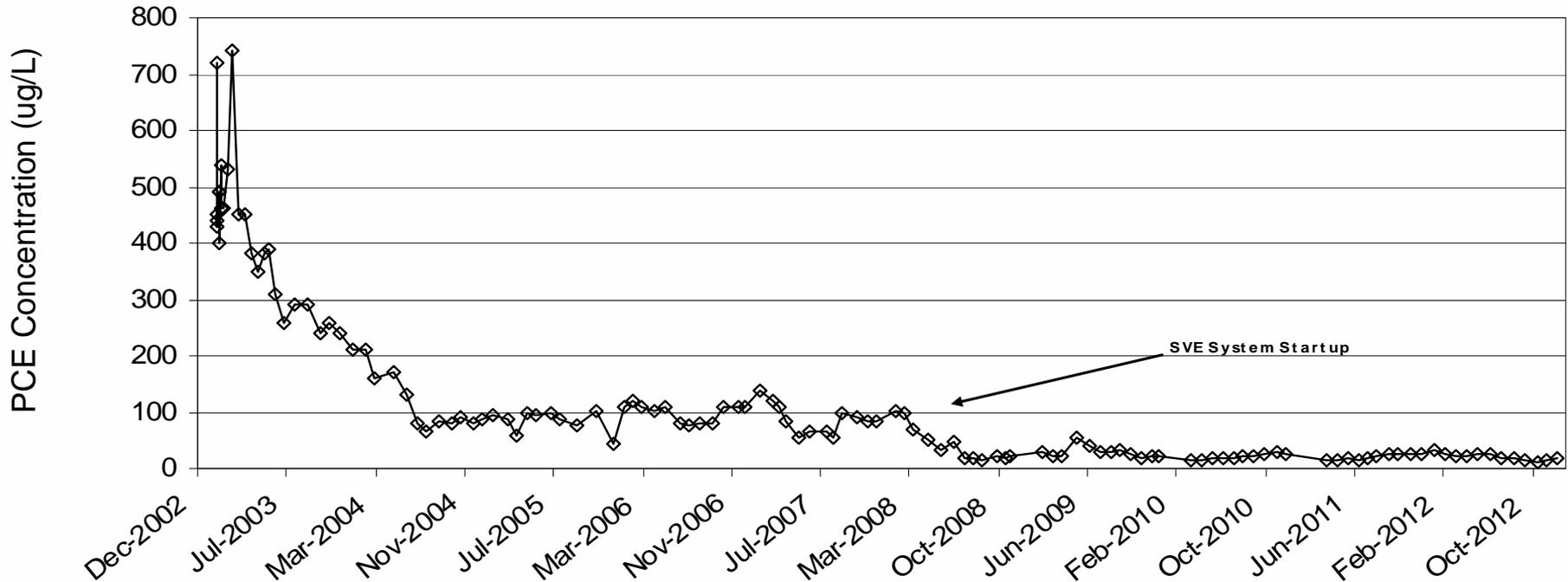
- A total of **326,511,485** gallons of GW have been pumped, treated and discharged as of 4th qtr 2012
- A total of approximately **284.4** lbs of PCE have been removed.
- VOC concentrations for influent samples ranged during 3rd qtr. 2010 through 4th qtr. 2012:

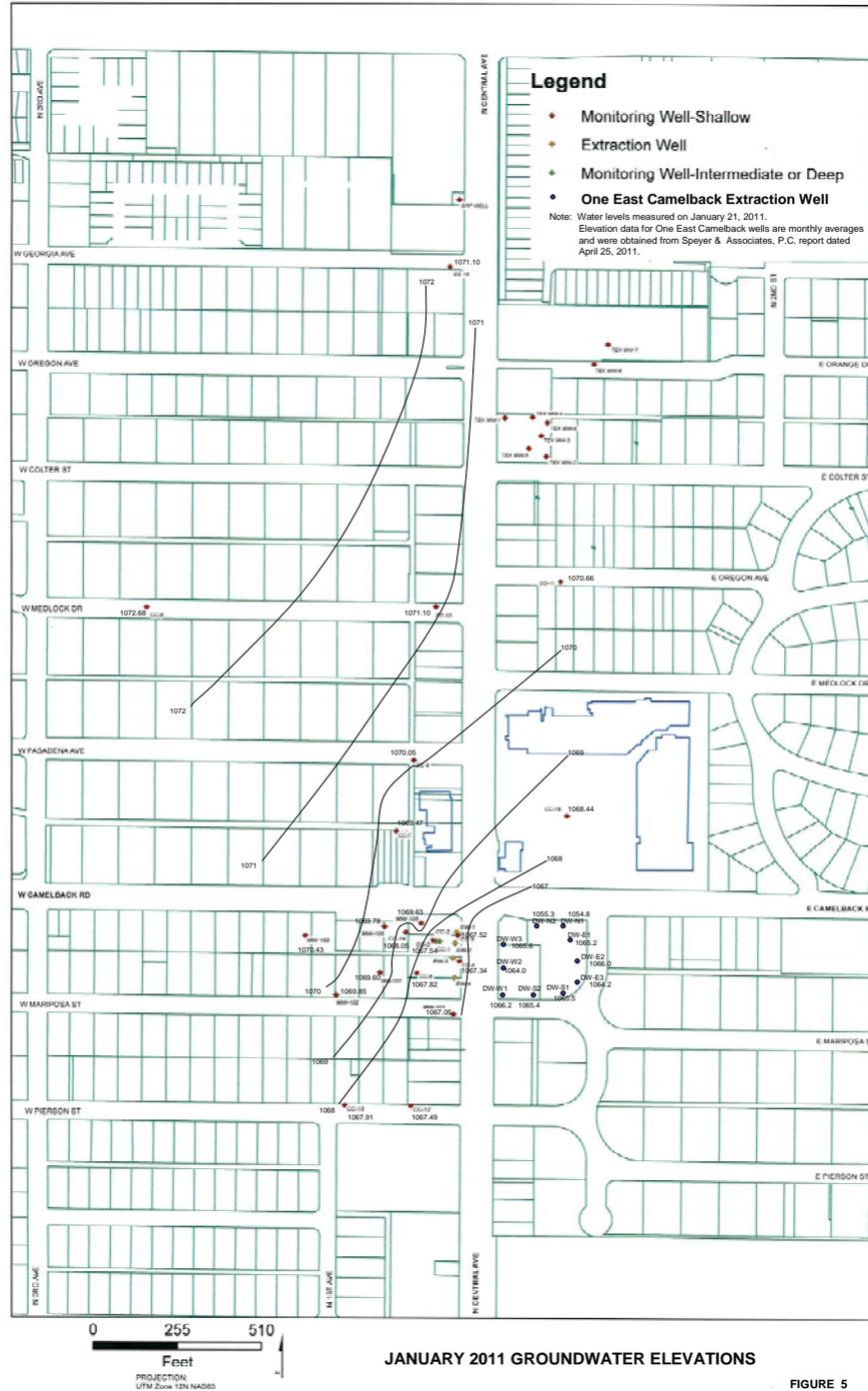
<u>Benzene</u> : <0.50 µg/L	(AWQS – 5 µg/L)
<u>Chloroform</u> : 2.8 - 4.8 µg/L	(AWQS – 100 µg/L)
<u>cis-1,2-DCE</u> : <0.50 - <0.50 µg/L	(AWQS - 70 µg/L)
<u>PCE</u> : 9.4 - 31 µg/L	(AWQS - 5 µg/L)
<u>TCE</u> : 1.1 - 5.5 µg/L	(AWQS - 5 µg/L)
<u>1,2-DCA</u> : <0.50 – <0.50 µg/L	(AWQS - 5 µg/L)

Operation & Maintenance Statistics for the GW Treatment System

Quarter	Gallons Treated	Percent Operational	VOC/PCE Removed (Lbs.)
4 th Qtr 2010	8,060,637	99.6%	2.28/1.72
1 st Qtr 2011	1,973,392	31.7%	0.29/0.21
2 nd Qtr 2011	5,955,838	98.2%	1.10/0.78
3 rd Qtr 2011	6,896,380	99.9%	1.77/1.29
4 th Qtr 2011	6,620,320	100%	1.97/1.45
1 st Qtr 2012	6,290,280	98.1%	1.81/1.35
2 nd Qtr 2012	6,355,160	98.9%	1.64/1.22
3 rd Qtr 2012	3,549,850	78.7%	0.70/0.51
4 th Qtr 2012	5,694,750	77.7%	1.03/0.72

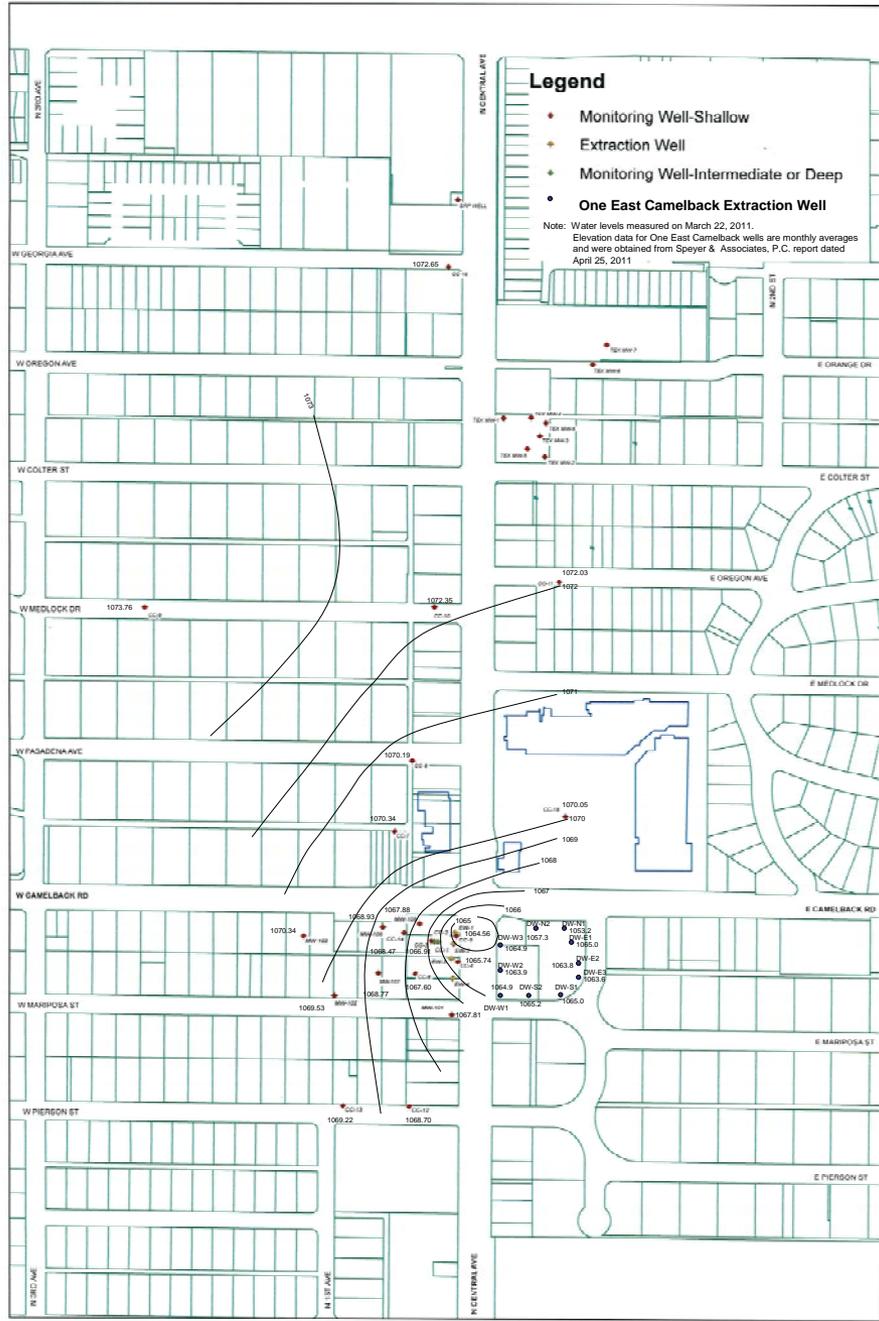
PCE Influent Concentration Changes with Time





JANUARY 2011 GROUNDWATER ELEVATIONS

FIGURE 5



Legend

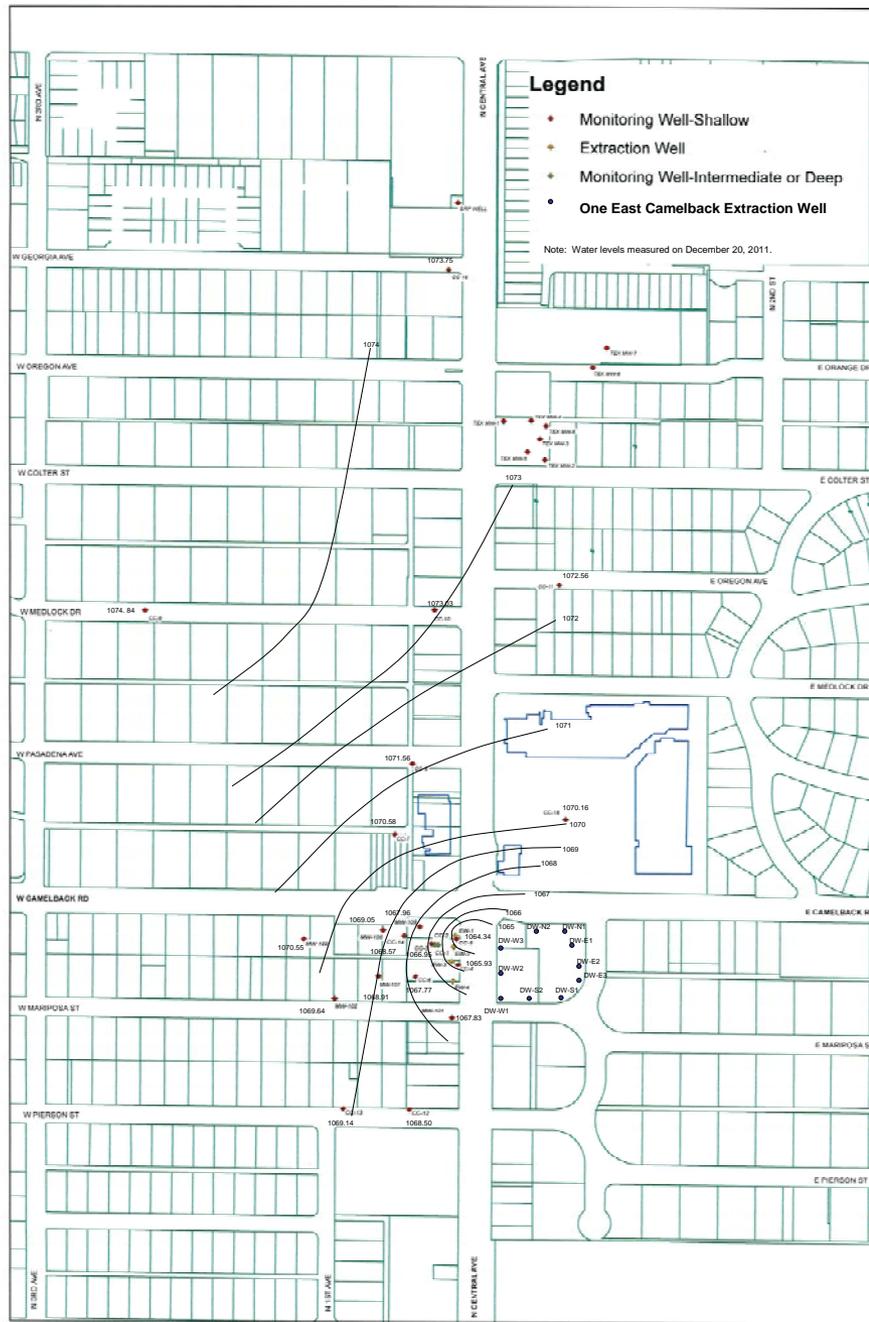
- Monitoring Well-Shallow
- Extraction Well
- Monitoring Well-Intermediate or Deep
- One East Camelback Extraction Well

Note: Water levels measured on March 22, 2011.
 Elevation data for One East Camelback wells are monthly averages and were obtained from Speyer & Associates, P.C. report dated April 25, 2011



MARCH 2011 GROUNDWATER ELEVATIONS

FIGURE 7



DECEMBER 2011 GROUNDWATER ELEVATIONS

FIGURE 7

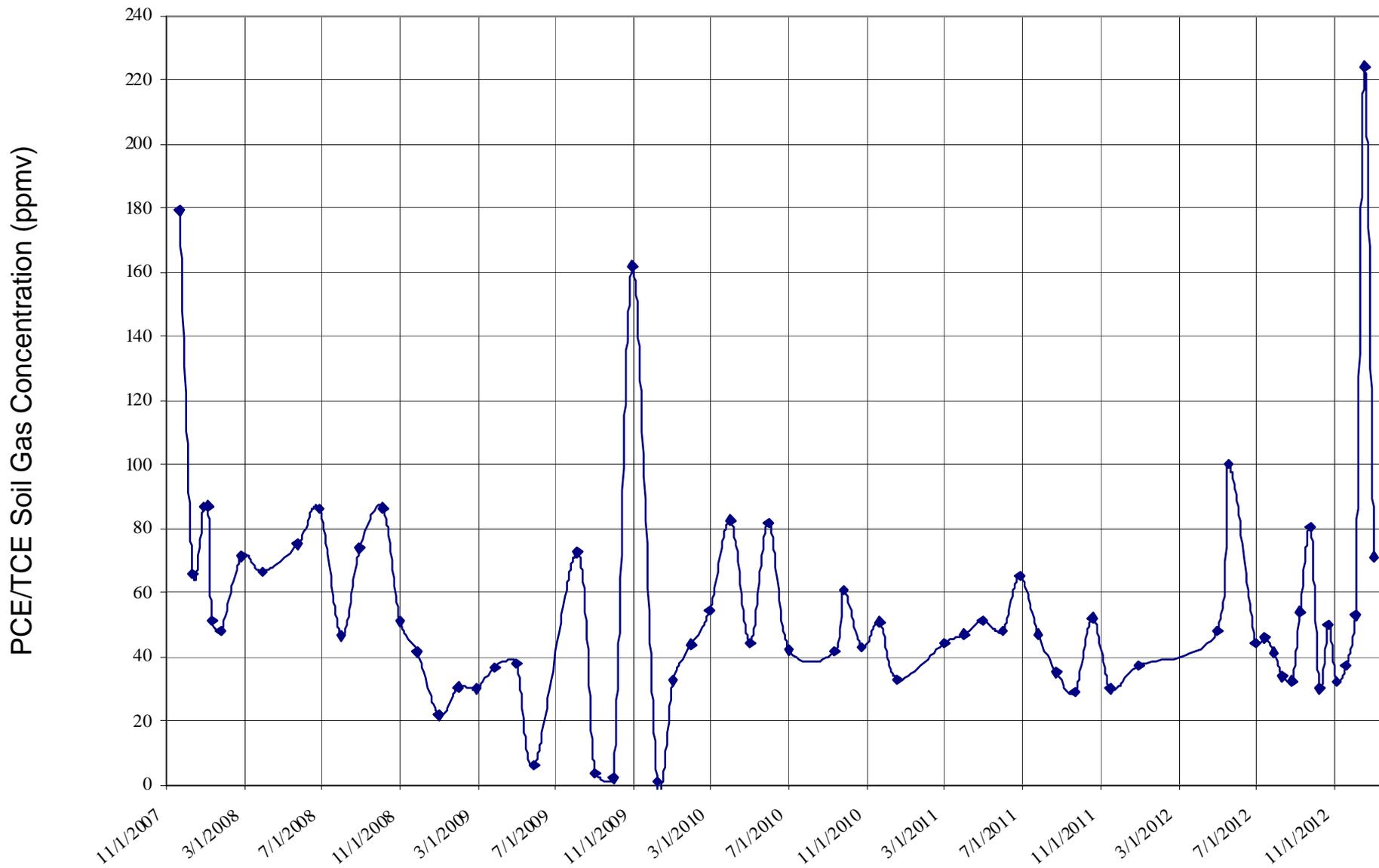
SVE (soil) System Update

- Modifications to inlet piping and cooling system in 2011 created an increase in soil vapor flow
- Granular activated carbon (GAC) change-out was done in March, May, and November 2012
- Conducting quarterly performance tests of system as required by renewed Air Quality Permit
- An additional nested extraction well was connected to the system

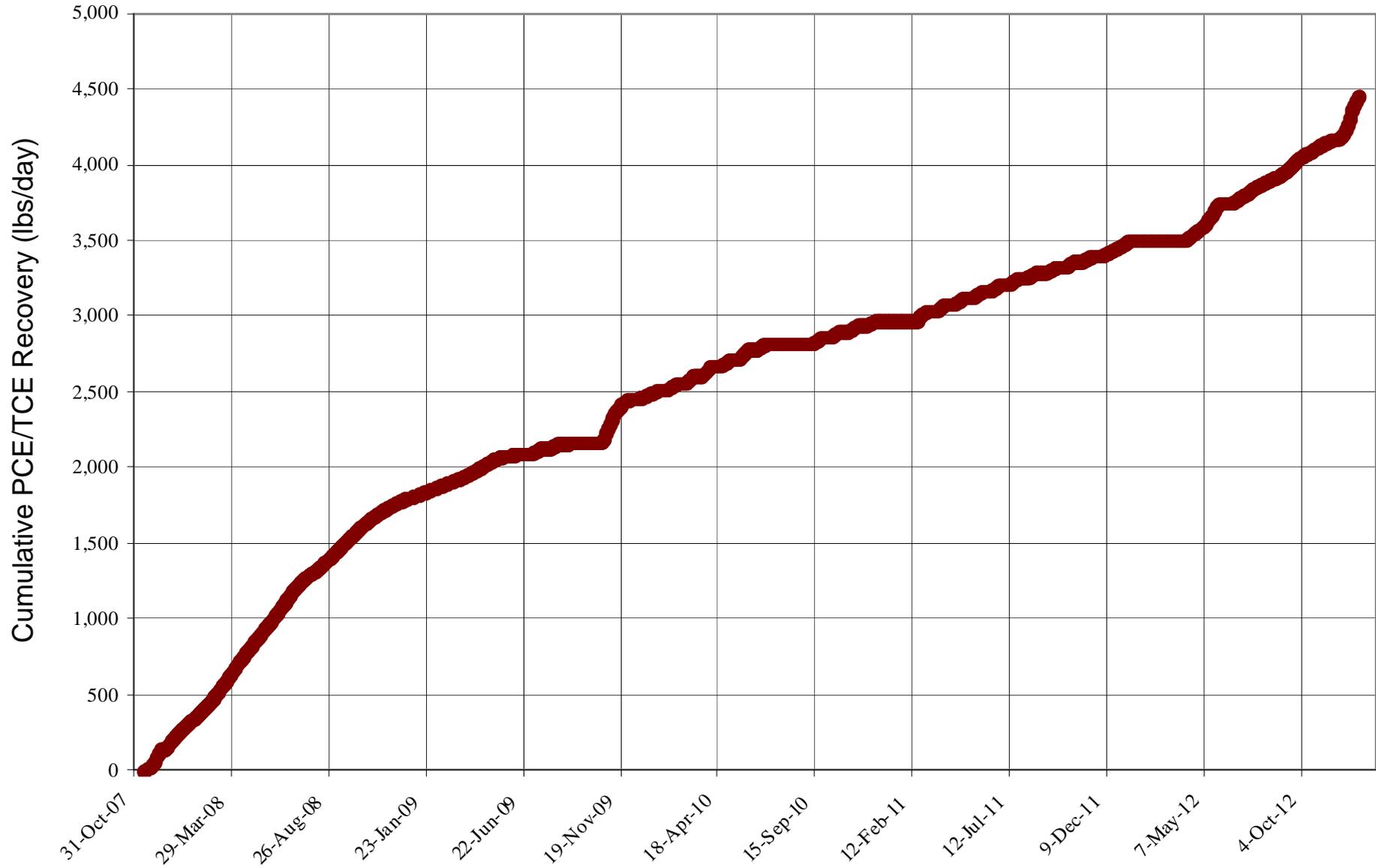
Operation & Maintenance Statistics for the Soil Vapor Extraction (SVE) system

Quarter	Percent Operational	PCE/TCE Removed (Lbs.)
4 th Qtr 2010	46%	136.3
1 st Qtr 2011	28%	102.4
2 nd Qtr 2011	50%	140.1
3 rd Qtr 2011	46%	121.0
4 th Qtr 2011	66%	152.3
1 st Qtr 2012	13%	34.5
2 nd Qtr 2012	73%	284.3
3 rd Qtr 2012	100%	270.9
4 th Qtr 2012	91%	412.7

SVE Influent Concentration Changes with Time

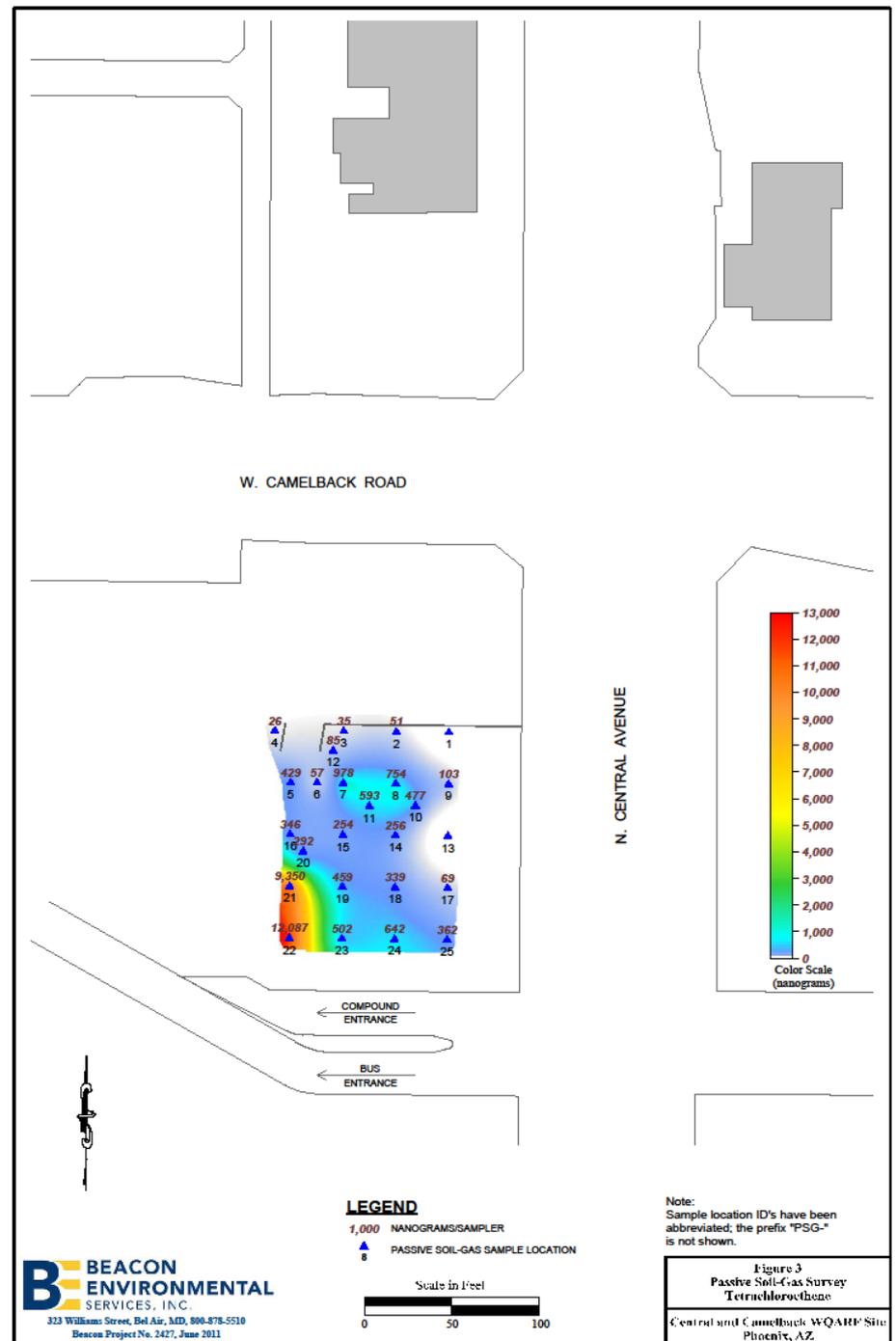


SVE Recovery With Time



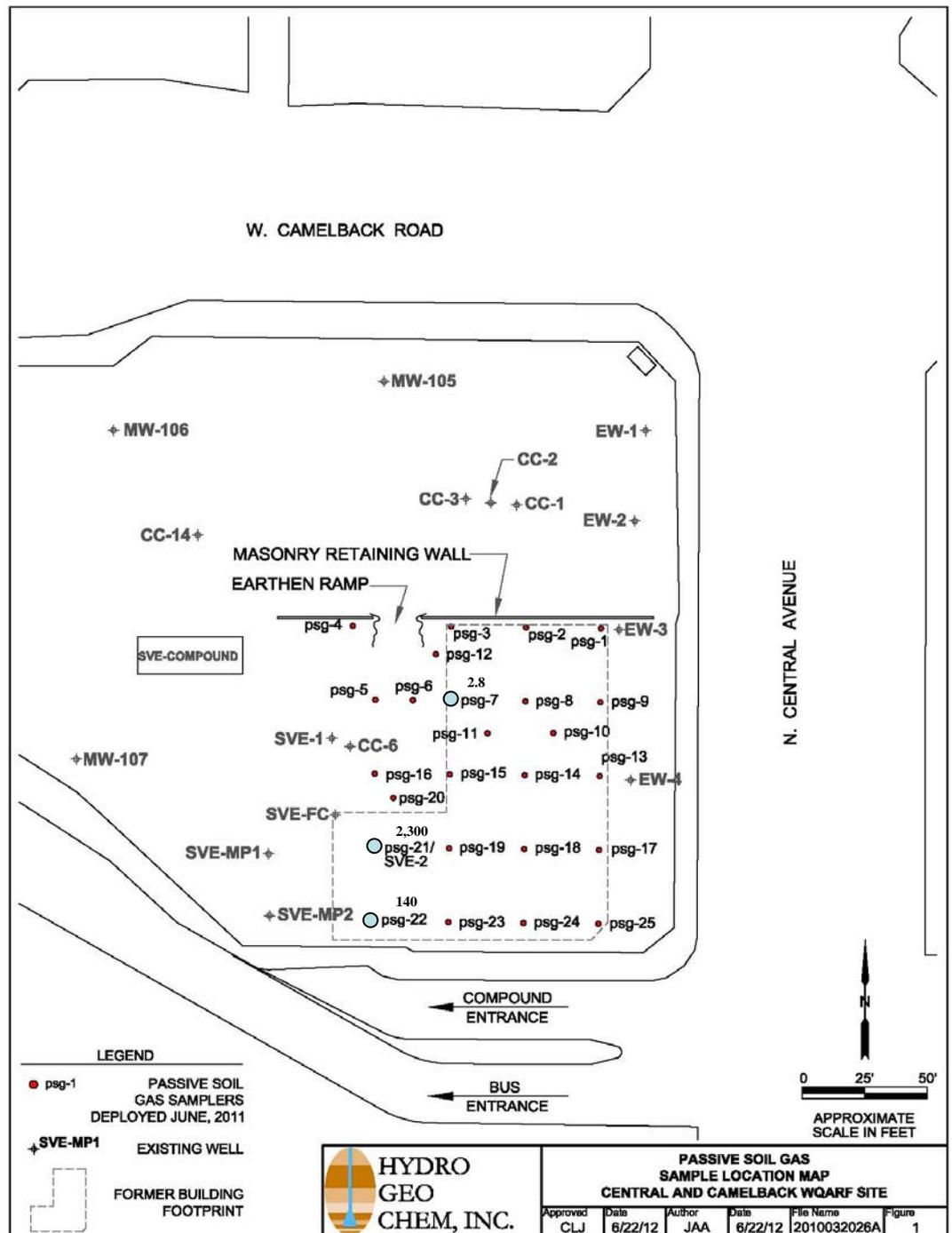
Additional Site Investigation

Recently conducted passive soil gas survey in the footprint of the former drycleaner building



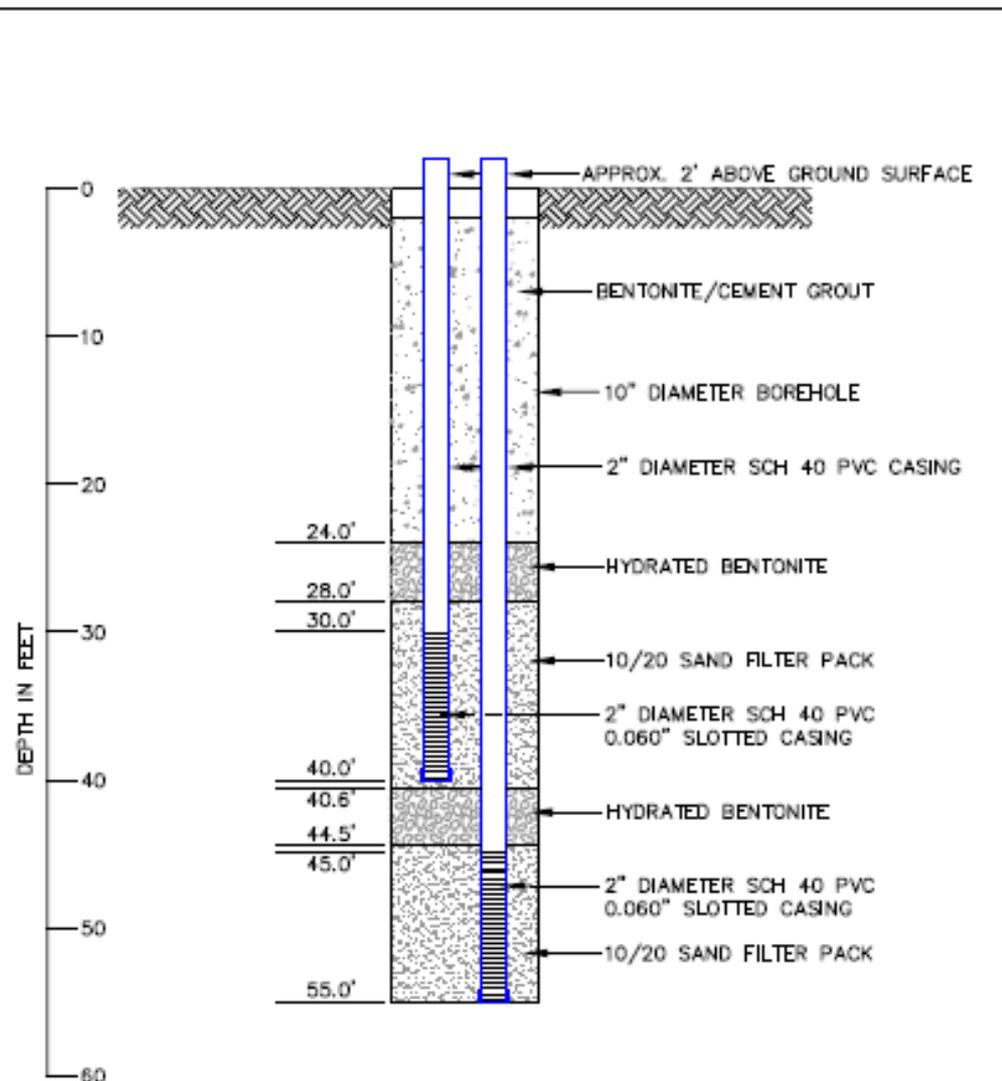
Additional Site Investigation

Conducted soil and active soil gas sampling at three locations



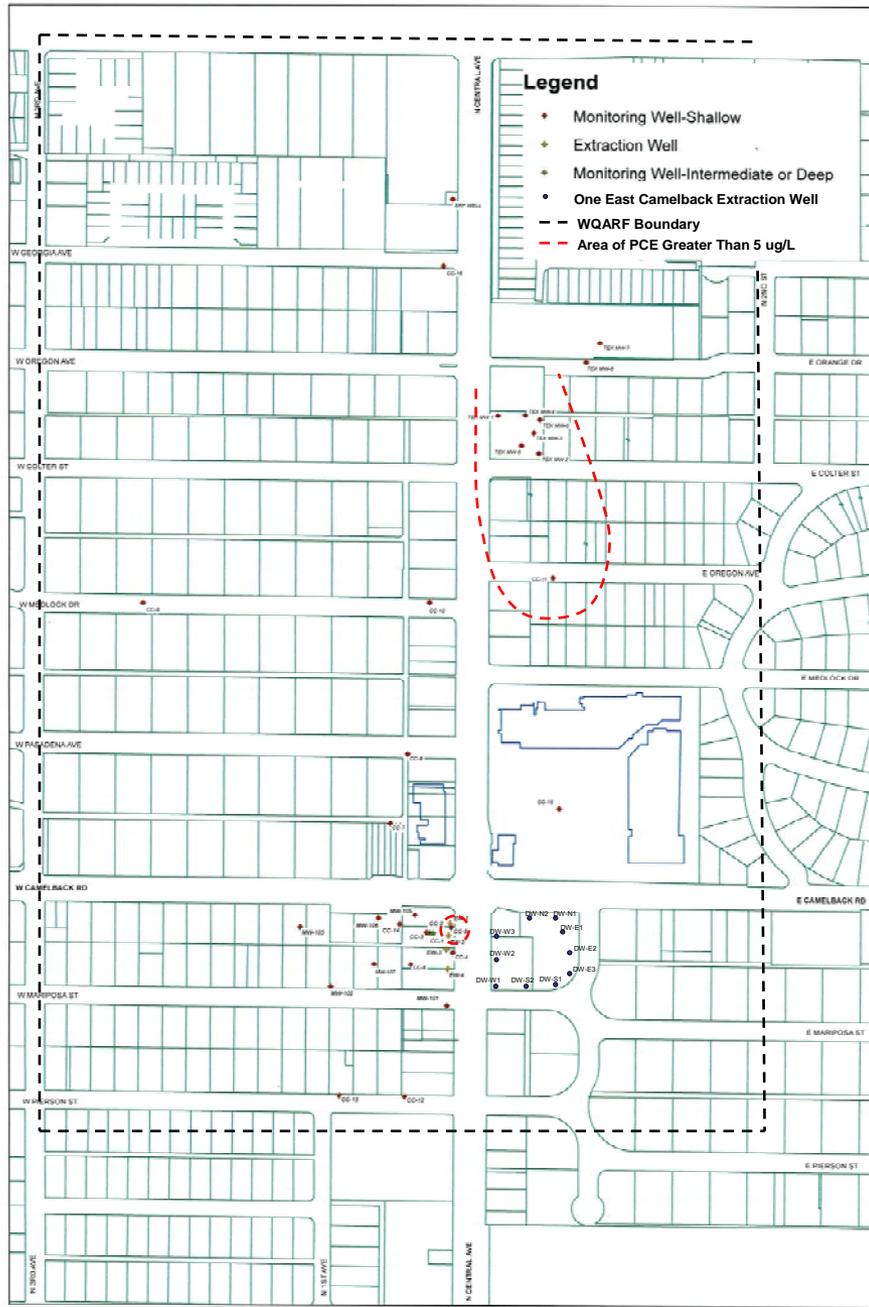
Additional Site Investigation

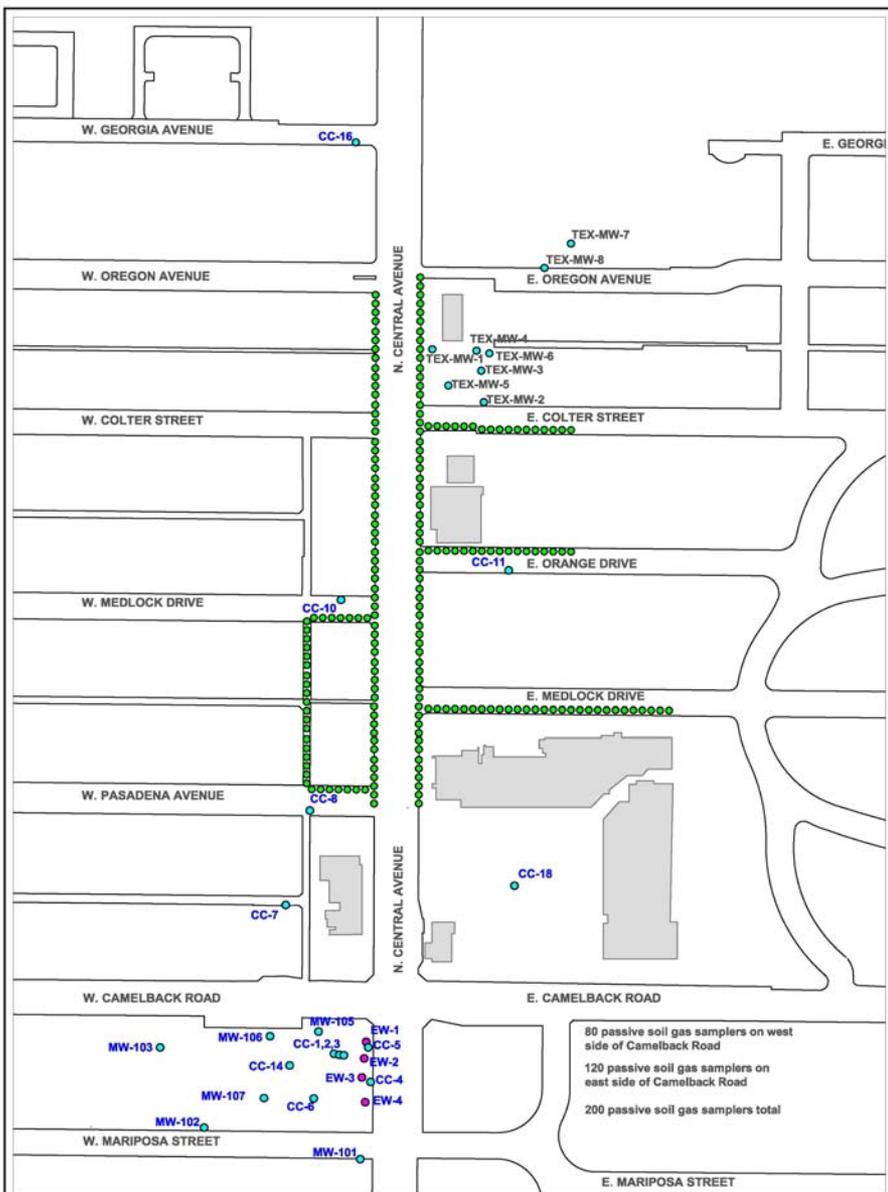
Installed a nested soil vapor extraction well in the southwest corner of the former building



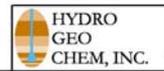
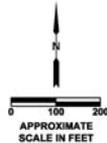
Future Planned Work

- Continue O&M Activities for both SVE and GW systems
- Continue to monitor water levels monthly and collect groundwater samples quarterly as budget allows
- Conduct soil investigation in northern portion of site and install 2 groundwater monitor wells

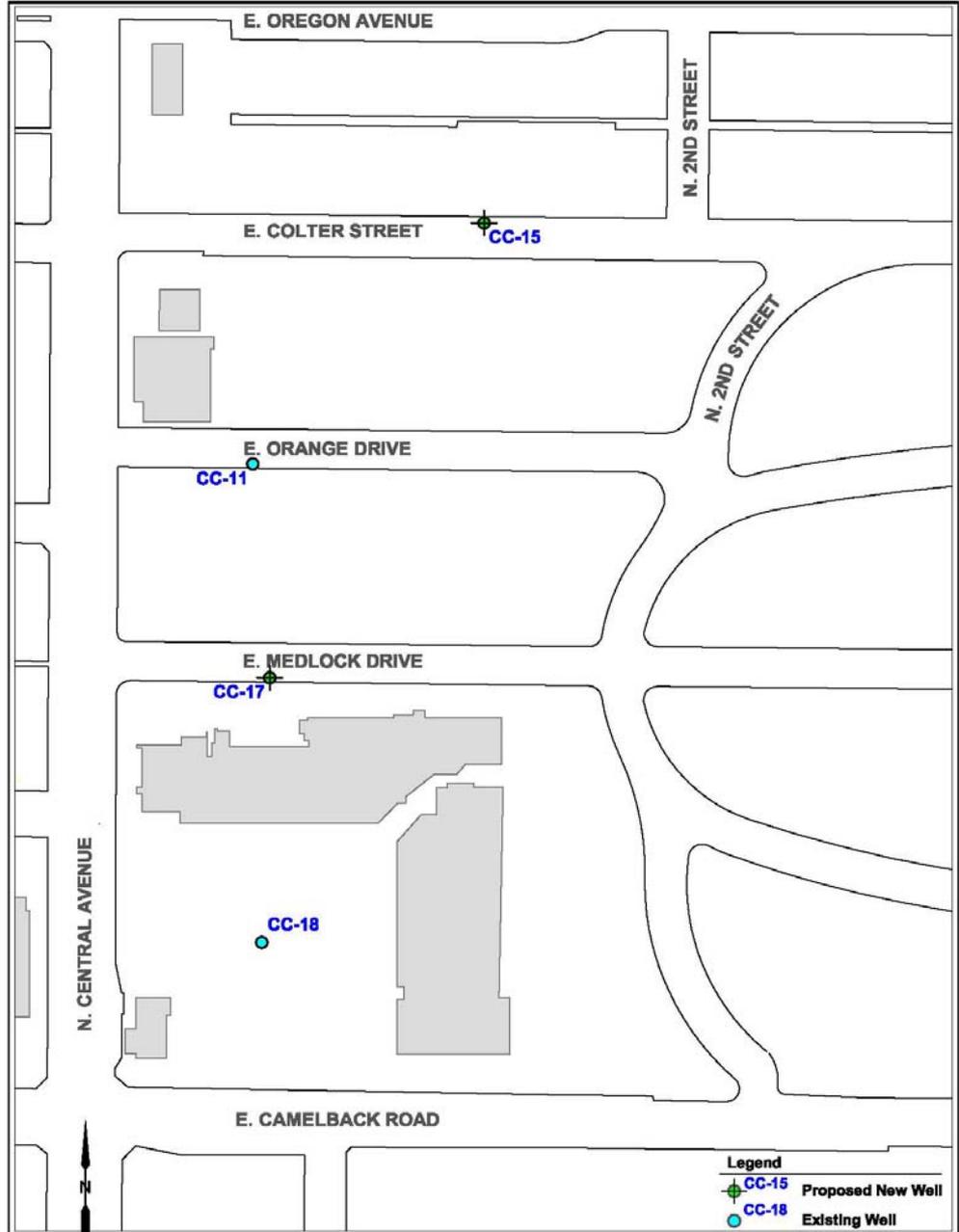




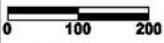
- Legend**
- Proposed Location for Passive Soil Gas Sampler
 - CC-4 Identification and Approximate Location of Monitor Well
 - EW-1 Identification and Approximate Location of Groundwater Extraction Well



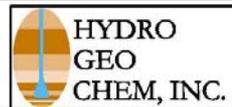
PROPOSED LOCATIONS FOR PASSIVE SOIL GAS SAMPLERS CENTRAL & CAMELBACK WQARF SITE			
Approved By:	Drawn By:	File Name:	Figure:
CLJ	JAA	2010032043A	3



- Legend**
-  CC-15 Proposed New Well
 -  CC-18 Existing Well



APPROXIMATE
SCALE IN FEET



PROPOSED GROUNDWATER MONITORING WELL LOCATIONS					
Approved	Date	Author	Date	File Name	Figure
CLJ	01/22/13	JAA	01/22/13	2010032042A	1